

**APPARATUS AND METHOD FOR COMMUNICATING BETWEEN  
COMPUTER SYSTEMS USING ACTIVE DATASTREAMS**

**ABSTRACT OF THE DISCLOSURE**

Two computer systems communicate with each other using active datastreams

5    that each identify executable code for sending and receiving the corresponding active datastream, and for performing any processing required by the active datastream. Each active datastream also includes a unique datastream identifier. When a first computer system (source) has a request to send to a second computer system (target), the source computer system creates an active datastream object that represents the request. Once the

10    active datastream object is created, a method on the active datastream object is invoked to send the active datastream object to the target. A datastream factory on the target reads the datastream identifier of the transmitted active datastream object, determines from the datastream identifier the class of active datastream object being received, and creates a new instance of the class corresponding to the datastream identifier. A datastream

15    receive mechanism on the target is a method on the new instance, which is invoked to cause the instance to populate itself from the active datastream object received from the source. Logic for replying to the request may also be provided as one or more methods defined on the active datastream class.